

Zhenhua Tan

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EDUCATION

- **University of California, Los Angeles** Los Angeles, CA
Bachelor of Science in Computer Science; GPA: 3.30 Sep. 2018 – Jun. 2020
- **City College of San Francisco** San Francisco, CA
Associate of Science in Computer Science; GPA: 3.78 Sep. 2016 – Jun. 2018

PROJECTS

- **Downtime Monitor**
Personal Project
 - **API endpoints:** Created API endpoints using Express and Apollo GraphQL.
 - **Monitoring:** Implemented website monitoring with a cron job and Apollo GraphQL polling query.
 - **Report Generation:** Implemented website downtime report generation with TOAST UI library.
 - **Email Alert:** Implemented alert triggers via email with SendGrid Email API.
- **Mini Social Media Web**
Personal Project
 - **Notifications:** Implemented a web push notification to alert users whenever a new post is created.
 - **Loading Optimization:** Lazy loaded posts and comments to avoid unnecessary loading. Rendered GIF images in MP4 format and paused GIF images when moved out of view to improve loading time.
 - **Data Modeling:** Designed data model for user and post entities.
 - **Image Hosting:** Used Cloudinary cloud-based image hosting service to host images.
 - **Data Query:** Designed GraphQL schema and endpoints. Used Apollo GraphQL to fetch and mutate only the fields the clients want.
 - **User Interface:** Leveraged React.js, along with Material UI and Semantic UI, to implement the interface.
- **Sorting Algorithms Visualizer**
Personal Project
 - **Visualization:** Used setTimeout function from Javascript to control the animation speed.
- **Spotify Web Clone**
Personal Project
 - **Interface:** Created web interface using Material UI and CSS.
 - **Spotify API:** Made use of Spotify public API to fetch user playlists to populate the frontend.
 - **Reusable UI Component:** Implemented a playback slider and volume slider to modify the currently playing song state.
 - **State Management:** Managed and shared users data among all the components using React Context.

ACADEMIC PROJECTS

- **HTTP Server:** Performed peer code reviews on Gerrit. Implemented proxy caching for the server.
- **Pintos Operating System:** Implemented scheduling, resource allocation and fast file system for the OS.
- **Mentor Mentee Matching:** Setup forms on the frontend to collect user data. Implemented the business logic on the backend.

COURSEWORK

Software Engineering, Operating System, Computer System Architecture, Compiler Construction, Intro to Artificial Intelligence, Intro to Machine Learning, Database Systems, Web Application, Computer Network Fundamentals, Programming Language

PROGRAMMING SKILLS

- **Languages:** C++, Javascript, Java, SQL, Ruby, CSS
- **Technologies:** Nodejs, GraphQL, Express, React, MongoDB, Ruby on Rails